

## ANNOUNCEMENT OF FEDERAL FUNDING OPPORTUNITY

### **EXECUTIVE SUMMARY**

- ! **Federal Agency Name(s)**: Center for Sponsored Coastal Ocean Research (CSCOR), National Centers for Coastal Ocean Science (NCCOS), National Ocean Service (NOS), National Oceanic and Atmospheric Association (NOAA), Department of Commerce (DOC)
- ! **Funding Opportunity Title**: Monitoring and Event Response for Harmful Algal Blooms (MERHAB)
- ! **Announcement Type**: Initial Announcement
- ! **Funding Opportunity Number**: NOS-NCCOS-2007-2000700
- ! **Catalog of Federal Domestic Assistance Number**: 11.478, Center for Sponsored Coastal Ocean Research, Coastal Ocean Program (CSCOR/COP)
- ! **Program Authorities**: 16 U.S.C. 1442; and Pub.L. 105-383 title VI, Nov. 13, 1998, 112 Stat. 3447
- ! **Dates**: The deadline for receipt of proposals at the NCCOS/CSCOR office is 3 p.m., EST October 2, 2006.
- ! **Funding Opportunity Description**: The purpose of this document is to advise the public that NCCOS/CSCOR is soliciting proposals for two types of research projects: MERHAB-targeted and MERHAB-regional. MERHAB-targeted proposals will incorporate tools, approaches and technologies from HAB research programs into existing harmful algal bloom (HAB) monitoring programs. MERHAB regional proposals will create partnerships to enhance existing and initiate new HAB monitoring capabilities that will provide managers with timely information needed to mitigate HAB impacts on coastal communities. It is anticipated that final recommendations for funding under this announcement will be made in early calendar year 2007, and that projects funded under this announcement will have an August 1, 2007, start date.
- ! **Electronic Access**: Following websites furnish supplementary information related to the MERHAB program:
  1. *Marine Biotoxins and Harmful Algae: A National Plan*@ (Anderson, D.M., S.B. Galloway, and J.D. Joseph. 1993. WHOI Technical Report 93-02, Woods Hole Oceanographic Institution, Woods Hole, MA 44 pp. <http://www.whoi.edu/redtide/nationplan/s-kplan/s-kcontents.html>.
  2. *Harmful Algal Blooms in Coastal Waters: Options for Prevention, Control, and Mitigation* (Boesch, D.F. et al 1997. NOAA COP Decision Analysis Series No.10, NOAA Coastal Ocean Office, Silver Spring, MD 46 pp.; <http://www.cop.noaa.gov/pubs/das/das10.pdf>

4. *Prevention, Control, and Mitigation of Harmful Algal Blooms: A Research Plan* (NOAA National Sea Grant College Program. 2001. 28pp.; [http://www.whoi.edu/redtide/pertinentinfo/PCM\\_HAB\\_Research\\_Plan.pdf](http://www.whoi.edu/redtide/pertinentinfo/PCM_HAB_Research_Plan.pdf).
5. *National Assessment of Harmful Algal Blooms in U.S. Waters* (National Science and Technology Council Committee on Environment and Natural Resources. October 2000. 38pp.; [http://www.cop.noaa.gov/pubs/habhrca/Nat\\_Assess\\_HABs.pdf](http://www.cop.noaa.gov/pubs/habhrca/Nat_Assess_HABs.pdf).
6. HARNNESS, 2005. Harmful Algal Research and Response: A National Environmental Science Strategy 2005–2015. Ramsdell, J.S., D.M. Anderson and P.M. Glibert (Eds.), Ecological Society of America, Washington DC, 96 pp. <http://www.esa.org/HARNNESS/harnessReport10032005.pdf>
7. Public Law 105-383, Title VI, the Harmful Algal Bloom and Hypoxia Research and Control Act. <http://www.cop.noaa.gov/stressors/extremeevents/hab/habhrca/>
8. Abstracts summarizing MERHAB funded projects may be viewed at: [http://www.cop.noaa.gov/stressors/extremeevents/hab/current/abs\\_MERHAB\\_cover.html](http://www.cop.noaa.gov/stressors/extremeevents/hab/current/abs_MERHAB_cover.html)
9. Information on ecological forecasting activities in NOAA Ocean Service (NOS) <http://oceanservice.noaa.gov/topics/coasts/ecoforecasting/welcome.html> and NOS National Centers for Coastal Ocean Science <http://coastalscience.noaa.gov/about/ecoforecasts>.  
Proposals should be submitted through Grants.gov, <http://www.grants.gov>.

## FULL ANNOUNCEMENT TEXT

### I. Funding Opportunity Description

#### A. Program Objective

Harmful algal blooms (HABs) are one of the most scientifically complex and economically significant coastal issues facing the nation today. Virtually every coastal state has reported major blooms and, in many regions, of the U.S., blooms are recurrent and result in serious problems. Blooms can extend over large geographic areas, be composed of more than one harmful or toxic species, and cause significant impacts on fisheries, recreation, economies, human health, and the functioning of both marine and fresh water ecosystems.

HAB impacts on public health and local/regional economies are also dramatic and increasing. HABs can cause human illness and death, alter marine habitats, adversely impact fish and other marine organisms, as well as close many coastal businesses. Economic impacts are attributable to maintenance of toxin monitoring programs and marine mammal standing networks; closures of shellfish beds, collapse of some fisheries; loss of seafood sales; mortality of fish shellfish, turtles, birds and mammals; disruptions in tourism; threats to public and coastal resource health; and medical treatments. A single HAB event can cost tens of millions of dollars to local economies and the total economic losses associated with HABs is conservatively estimated to be \$49 million annually (Anderson et.al. 2000, available at [http://www.whoi.edu/redtide/pertinentinfo/Economics\\_report.pdf](http://www.whoi.edu/redtide/pertinentinfo/Economics_report.pdf)).

Currently, the most effective way to mitigate HAB impacts on U.S. coastal communities and coastal resources is with enhanced monitoring combined with rapid response to HAB events (CENR 2000). Resource management agencies, public health departments and

national seafood safety systems have prevented outbreaks of reportable HAB related illness and death from consumption of shellfish tainted with known HAB toxins. However monitoring agencies need access to new technologies and advances in our understanding of fundamental processes underlying the impacts and population dynamics of HABs to keep pace with the growing national HAB problem. States and Tribes on the frontline in mitigating HAB impacts are having to build monitoring efforts that detect more toxins impacting more organisms over larger areas; expand water quality and shellfish programs to track and respond to high biomass and toxic bloom events, enhance public health surveillance to improve diagnosis and treatment of HAB-related illnesses; and to protect our recreational and source drinking water from HAB toxins.

NOAA initiated the MERHAB program as a complement to the NCCOS/CSCOR interagency Ecology and Oceanography of Harmful Algal Bloom (ECOHAB) research program (<http://www.cop.noaa.gov/stressors/extremeevents/hab/welcome.html>) to enhance the transition to application of HAB – related research products including advances in understanding of linkages between HAB ecology and environmental conditions as well as new technologies to detect and monitor algal toxins, cells, and critical environmental conditions. Since 1999, MERHAB has sponsored 25 projects with topics ranging from low cost HAB detection methods to large-scale, multi-disciplinary regional efforts to develop enhanced HAB monitoring programs. Project summaries may be viewed at: [http://www.cop.noaa.gov/stressors/extremeevents/hab/current/abs\\_MERHAB\\_cover.html](http://www.cop.noaa.gov/stressors/extremeevents/hab/current/abs_MERHAB_cover.html)

MERHAB projects are enhancing coastal monitoring programs and assisting resource and public health risk managers respond to growing threats from HABs.

The principal focus of MERHAB is to build capabilities of local, state and tribal governments, and the private sector, for less costly but more precise and comprehensive measurement of HAB parameters. This will make existing monitoring programs more efficient while providing for better coverage in time and space. MERHAB enables rigorous field testing of state-of-the-art technology through targeted projects and incorporates new methods of detecting, tracking, and predicting HABs into existing monitoring programs through regional and comprehensive monitoring partnerships. MERHAB also develops event-response capabilities within affected regions to ensure trained and equipped personnel are able to mobilize quickly, conduct appropriate sampling and testing, and communicate effectively during HAB events.

MERHAB projects are intended to produce faster, less expensive and more reliable detection methods for HAB cells and toxins, to develop instruments for low-cost, long-term observation of relevant coastal ocean conditions, to develop reliable models that predict bloom development, persistence, toxicity and movement, and to foster stronger mechanisms to respond to outbreaks. MERHAB also encourages science-management partnerships among key institutions in HAB impacted regions necessary to create and sustain advances in HAB monitoring. MERHAB is developing and demonstrating capabilities of HAB early warning systems and is laying a foundation for regional operational HAB forecasts, a long term goals of NOAA HAB research that contributes to the NOAA/NOS/NCCOS/CSCOR focus on ecological forecasting (<http://oceanservice.noaa.gov/topics/coasts/ecoforecasting/welcome.html> and <http://coastalscience.noaa.gov/about/ecoforecasts.html>). With these advances, State programs

will be better able to take preventative actions (e.g. increase monitoring efforts, close shellfish beds, warn affected communities) to safeguard the public health, local economies, and fisheries. The MERHAB Program will also provide data allowing for better measurement and comparison of the socio-economic costs of HAB events and benefits to coastal communities from mitigation strategies. As a result of the MERHAB Program, managers will be able to mitigate the expanding HAB problems in their coastal regions and be better positioned, especially during difficult state fiscal climates, to request long-term support from local, state, regional or Federal funding sources.

## **B. Program Priorities**

The primary goal of the MERHAB Program is to mitigate HAB impacts by incorporating products generated from past or ongoing HAB research programs into operational components of existing monitoring programs in HAB-impacted coastal regions. MERHAB is not intended to provide long-term support for routine monitoring efforts, but to help build sustainable regional partnerships infused with new technologies that provide managers with crucial information in time for critical decisions needed to mitigate HAB impacts.

### **1) MERHAB-Targeted Research Projects**

#### **(a) Objectives:**

(i) Develop a technology that will enhance HAB monitoring activities in U.S. coastal waters; (ii) incorporate that technology into existing HAB monitoring programs.

#### **(b) Characteristics:**

(i) Should rigorously field-test new technologies to detect algal species, toxin, or toxicity and/or monitor the environmental conditions that support HABs. Technologies may include, but are not limited to, rapid field assays for shellfish, improved diagnostic techniques for in situ detection of HAB cells, remote sensing technology to help target sampling efforts, instruments to observe coastal ocean conditions and mathematical models useful in predicting or forecasting HABs; (ii) should include efforts specified in work plans to build support for the incorporation of technology into one or more existing state or regional HAB monitoring programs, (iii) may be conducted either by an individual or small investigative team; and (iv) must address specific needs of the HAB management community.

#### **(c) Expected Products and Outcomes:**

(i) Development and testing of new tools to rapidly detect HABs and their toxins; to monitor and track HABs and key HAB-related ecosystem conditions; and to predict or forecast HABs; (ii) demonstration of effective application of technology in an existing or enhanced monitoring program; and (iii) comprehensive data analysis and integration that advances the state of science and management in the study region and ideally in other regions as well (i.e. tools and instruments for HAB forecasting including, but not limited to numerical and conceptual models; economic valuation of direct and indirect costs associated with HAB events; and region-specific management recommendations based on study results, technical reports, peer-reviewed publications, and databases).

### **2) MERHAB-regional, intensive HAB monitoring projects**

#### **(a) Objectives**

(i) Develop new or increase existing regional capabilities for HAB monitoring; (ii) incorporate new tools for HAB measurement into existing monitoring efforts; (iii) include local, state, regional, Federal, or non-governmental entities as active partners in identifying environmental measurements and their importance to managing coastal resources and protecting human health (i.e. generating public advisories) in the area; (iv) determine need and work to secure long-term local, state, regional, or other funding that will support enhancements in HAB monitoring when MERHAB project funding ends; (v) develop local and/or regional capabilities to respond to HAB events; and (vi) develop a capability to predict or forecast HABs.

(b) Characteristics

(i) Include a suite of annual studies and involve a multi-disciplinary, collaborative team of investigators. The team should represent groups with strong interests in mitigating the impacts of HABs, including, but not limited to, the natural and social science research community, existing monitoring programs, communities dependent upon affected resources, business and industry associations, and non-profit organizations; (ii) include in the team of investigators representatives of appropriate local, state, tribal, regional, and Federal agencies that have responsibility for the economic, regulatory, and management issues being addressed; (iii) include a plan for continued interaction with these and other representatives of management agencies to facilitate the incorporation of research results into existing monitoring programs and to identify means to continue HAB monitoring efforts after MERHAB project funding has ended; and (iv) form a management team with a designated chairperson serving as the main point of contact with the MERHAB Program Manager.

(c) Expected Outcomes and Deliverables

(i) Include regional stakeholder input and participation through means that may include, but are not limited to, annual workshops, management and technical advisory committees that involve a broad spectrum of regional interests and training in use of new technology; (ii) provide recommendations to management of the parameters to be measured in a region and the types of instruments that should be developed or adapted into existing monitoring programs; (iii) deploy new HAB monitoring tools in existing monitoring programs; (iv) conduct comprehensive data analysis and integration that advances the state of science and management. (i.e. operational HAB forecasting, numerical and conceptual models; regional case studies with explicit applications to important management issues; risk analysis of management scenarios; regional economic valuation of direct and indirect costs associated with HAB events; and region-specific management recommendations based on study results); (v) develop commitments from one or more local, state, tribal, regional, or Federal organizations or governing bodies for continued, long-term support of expanding HAB monitoring capabilities; (vi) develop real-time, scientific response capability during HAB outbreaks for the region that includes, but is not limited to, the use of local experts, establishing local academic-government- NGO-private partnerships for providing immediate analytical and sampling capacities, and expanding local abilities for transferring samples to analytical services outside the region; and (vii) conduct outreach to improve awareness of HAB outbreaks and their environmental and societal costs, and to mitigate their impact on vital natural resources, public health and local/regional economies.

3) Shared Characteristics of Targeted and Regional, Intensive Projects

Project results will be distributed to stakeholders via scientific, peer-reviewed articles, synthesis documents, briefings, electronic web sites, and any other means defined by the applicants.

Project proposals should also clearly identify a timetable of accomplishments and major program

elements that will lead to specific interim and final assessments of applicability and effectiveness of a number of monitoring approaches. Explicit identification of the end user group(s) is required and must include evidence of linkages between the scientific questions and management needs. The project team must include a participating management entity(s).

**C. Program Authorities:** 16 U.S.C. 1442 and Pub.L. 105-383, title VI, Nov. 13, 1998, 112 Stat. 3447

## **II. Award Information**

### **A. Funding availability**

Funding is contingent upon availability of Federal appropriations. NOAA is committed to continual improvement of the grants process and accelerating the award of financial assistance to qualified recipients in accordance with the recommendations of the Business Process Reengineering Team. In order to fulfill these responsibilities, this solicitation announces that award amounts to be determined by the proposals and available funds typically not to exceed \$100,000 per project per year with project durations from 1-3 years for targeted research projects and \$600,000 per project per year with projects duration from 3-5 years for regional research projects. It is anticipated that 5 to 15 total projects will be funded with no more than two being regional intensive projects. Support in out years after FY 2007 is contingent upon the availability of funds.

Applicants are hereby given notice that funds have not yet been appropriated for this program. In no event will NOAA or the Department of Commerce be responsible for proposal preparation costs if this program fails to receive funding or is cancelled because of other agency priorities. There is no guarantee that sufficient funds will be available to make awards for all qualified projects. Publication of this notice does not oblige NOAA to award any specific project or to obligate any available funds. If one incurs any costs prior to receiving an award agreement signed by an authorized NOAA official, one would do so solely at one's own risk of these costs not being included under the award.

Publication of this notice does not obligate any agency to any specific award or to obligate any part of the entire amount of funds available. Recipients and subrecipients are subject to all Federal laws and agency policies, regulations and procedures applicable to Federal financial assistance awards.

### **B. Project/Award period**

Full proposals may cover a project/award period of up to 3 years for Targeted research proposals and 5 years for Regional research proposals, but shorter-term project proposals will also be welcomed. Multi-year awards may be funded incrementally on an annual basis, but, once awarded, those awards will not compete for funding in subsequent years. Each award requires a project description that can be easily divided into annual increments of meaningful work representing solid accomplishments.

The following is a description of multi-year awards for those applicants subsequently recommended for award. Multi-year awards are awards which have an award/project period of more than 12 months of activity. Multi-year awards are partially funded when the awards are approved, and are subsequently funded in increments. One of the purposes of multi-year awards is to reduce the administrative burden on both the applicant and the operating unit. For example, with proper planning, one application can suffice for the entire multi-year award period. Funding for each year's activity is contingent upon the availability of funds from Congress, satisfactory performance, and is at the sole discretion of the agency. Multi-year funding is appropriate for projects to be funded for 2 to 5 years. Once approved, full applications are not required for the continuation out years.

### **C. Type of funding instrument**

Funding instruments available are project grants and cooperative agreements.

(1) Research Project Grants: A research project grant is one in which substantial programmatic involvement by the Federal government is not anticipated by the recipient during the project period. Applicants for grants must demonstrate an ability to conduct the proposed research with minimal assistance, other than financial support, from the Federal government.

(2) Cooperative Agreements: A cooperative agreement implies that the Federal government will assist recipients in conducting the proposed research. The application should be presented in a manner that demonstrates the applicant's ability to address the research problem in a collaborative manner with the Federal government. A cooperative agreement is appropriate when substantial Federal government involvement is anticipated. This means that the recipient can expect substantial agency collaboration, participation, or intervention in project performance. Substantial involvement exists when: responsibility for the management, control, direction, or performance of the project is shared by the assisting agency and the recipient; or the assisting agency has the right to intervene (including interruption or modification) in the conduct or performance of project activities.

(3) NOAA will review the applications in accordance with the evaluation criteria. Before issuing awards, NOAA will determine whether a grant or cooperative agreement is the appropriate instrument based upon the need for substantial NOAA involvement in the project.

(4) In an effort to maximize the use of limited resources, applications from non-Federal, non-NOAA Federal and NOAA Federal applicants will be competed against each other.

Research proposals selected for funding from non-Federal researchers will be funded through a project grant or cooperative agreement. Research proposals selected for funding from non-NOAA Federal applicants will be funded through an interagency transfer, provided legal authority exists for the Federal applicant to receive funds from another agency. PLEASE NOTE: Before non-NOAA Federal applicants may be funded, they must demonstrate that they have legal authority to receive funds from another Federal agency in excess of their appropriation. Because this announcement is not proposing to procure goods or services from the applicants, the Economy Act (31 U.S.C. section 1535) is not an appropriate basis. Support may be solely through NCCOS/CSCOR or partnered with other Federal offices and agencies.

### **D. Permits and Approvals**

It is the applicant's responsibility to obtain all necessary Federal, state and local government permits and approvals where necessary for the proposed work to be conducted. Applicants are expected to design their proposals so that they minimize the potential adverse impact on the environment. If applicable, documentation of requests or approvals of environmental permits must be received by the Program Officer prior to funding. Applications will be reviewed to ensure that they have sufficient environmental documentation to allow program staff to determine whether the proposal is categorically excluded from further NEPA analysis, or whether an Environmental Assessment is necessary in conformance with requirements of the National Environmental Policy Act. For those applications needing an Environmental Assessment, affected applicants will be informed after the peer review stage; and will be requested to assist in the preparation of a draft of the assessment (prior to award). Failure to apply for and/or obtain Federal, state, and local permits, approvals, letters of agreement, or failure to provide environmental analysis where necessary (i.e. NEPA environmental assessment) will also delay the award of funds if a project is otherwise selected for funding.

### **III. Eligibility Information**

#### **A. Eligible Applicants**

Eligible applicants are institutions of higher education, other non-profits, state, local, Indian Tribal Governments, commercial organizations and Federal agencies that possess the statutory authority to receive financial assistance.

NCCOS/CSCOR will not fund any Federal FTE salaries, but will fund travel, equipment, supplies, and contractual personnel costs associated with the proposed work.

(1) Researchers must be employees of an eligible entity listed above; and proposals must be submitted through that entity. Non-Federal researchers should comply with their institutional requirements for proposal submission.

(2) Non-NOAA Federal applicants will be required to submit certifications or documentation showing that they have specific legal authority to receive funds from the Department of Commerce (DOC) for this research.

(3) NCCOS/CSCOR will accept proposals that include foreign researchers as collaborators with a researcher who has met the above stated eligibility requirements.

(4) Non-Federal researchers affiliated with NOAA-University Joint Institutes should comply with joint institutional requirements; they will be funded through grants either to their institutions or to joint institutes.

#### **B. Cost Sharing or Matching Requirements**

None

#### **C. Other Requirements**

Each proposal must also include the twelve elements listed under Proposal Submission/Required Elements, (a)-(l) or it will be returned to sender without further consideration.

## **IV. Application and Submission Information**

### **A. Address to Submit Application Package**

Applications submitted in response to this announcement are strongly encouraged to be submitted through the Grants.gov Web site. The full funding announcement for this program is available via the Grants.gov Web site: <http://www.grants.gov> This announcement will also be available at the NOAA Web site <http://www.ofa.noaa.gov/%7Eamd/SOLINDEX.HTML> or by contacting the program official identified below. You will be able to access, download and submit electronic grant applications for NOAA Programs in this announcement at <http://www.grants.gov>. The closing dates will be the same as for the paper submissions noted in this announcement. NOAA strongly recommends that you do not wait until the application deadline date to begin the application process through Grants.gov.

Applicants should contact the program office for non-electronic submission instructions. Facsimile transmissions and electronic mail submission of full proposals will not be accepted.

### **FOR FURTHER INFORMATION CONTACT:**

**Technical Information.** Marc Suddleson, NCCOS/CSCOR Program Manager, 301-713-3338/ext 162, Internet: [Marc.Suddleson@noaa.gov](mailto:Marc.Suddleson@noaa.gov)

**Business Management Information.** Laurie Golden, NCCOS/CSCOR Grants Administrator, 301-713-3338/ext 151, Internet: [Laurie.Golden@noaa.gov](mailto:Laurie.Golden@noaa.gov).

### **B. Content and Form of Application Submission**

This document requests full proposals only. The provisions for proposal preparation provided here are mandatory. Proposals received after the published deadline (refer to DATES) or proposals that deviate from the prescribed format will be returned to the sender without further consideration. Information regarding this announcement and additional background information are available on the NCCOS/CSCOR home page.

#### **1. Proposals**

Refer to IV. Application and Submission Information for further application submission details.

#### **2. Required Elements**

For clarity in the submission of proposals, the following definitions are provided for applicant use: Funding and/or Budget Period - The period of time when Federal funding is available for obligation by the recipient. The funding period must always be specified in multi-year awards, using fixed year funds. This term may also be used to mean "budget period". A budget period is typically 12 months. Award and/or Project Period - The period established in the award document during which Federal sponsorship begins and ends. The term "award period" is also referred to as project period in 15 CFR 14.2(cc).

Each proposal must include the following twelve elements or it will be returned to sender without further consideration. The Summary, Title Page, Abstract, Project Description, References, Biographical Sketch, Current and Pending Support, and Collaborators List must be in 12-point font with 1-inch margins. The twelve elements are as follows:

**(a) Standard Form 424.** At the time of proposal submission, all applicants requesting direct funding must submit the Standard Form, SF-424, "Application for Federal Assistance," to indicate the total amount of funding proposed for their institution for the whole project period. This form is to be the cover page for the original proposal. Multi-institutional proposals must include signed SF-424 forms from all institutions requesting direct funding. Original signatures are required on SF424 forms provided to a lead institution by a collaborating institution for grants.gov submission.

**(b) Summary title page.** The Summary title page identifies the project's title, starting with the acronym: MERHAB 2007, and the PI's name and affiliation, complete address, phone, FAX and E-mail information. The requested budget for each fiscal year should be included on the Summary title page. Multi-institution proposals must also identify the lead investigator for each institution and the requested funding for each fiscal year for each institution on the title page. Lead investigator and separate budget information is not requested on the title page for institutions that are proposed to receive funds through a subcontract to the lead institution; however, an accompanying budget justification must be submitted for each subcontractor. For further details on budget information, please see Section (g) Standard Form SF424A of this part.

**(c) One-page abstract/project summary.** A project summary (abstract) is to be submitted at time of application, shall include an introduction of the problem, rationale, scientific objectives and/or hypotheses to be tested, and a brief summary of work to be completed.

The summary should appear on a separate page, headed with the proposal title, institution(s), investigator(s), total proposed cost, and budget period. It should be written in the third person. The summary is used to help compare proposals quickly and allows the respondents to summarize these key points in their own words. Project summaries of applications that receive funding may be posted on program related websites.

**(d) Project description.** The description of the proposed project must be complete and divided into annual increments of work that include: identification of the problem, scientific objectives, proposed methodology, relevance to the MERHAB program goals, and scientific priorities. The project description (including relevant results from prior support) should not exceed 15 pages for Targeted proposals and 20 pages for Regional proposals pages in 12-point, easily legible font. Page limits are inclusive of figures, other visual materials, and letters of endorsement, but are exclusive of references, a milestone chart, and letters of collaboration from unfunded collaborators. This section should clearly identify project management with a description of the functions of each PI within a team. It should provide a full scientific justification for the research, rather than simply reiterating justifications presented in this document. It should also include:

- (1) The objective(s) for the period of proposed work and their expected significance;
- (2) The relation to the present state of knowledge in the field and relation to previous work and work in progress by the proposing principal investigator(s);
- (3) A discussion of how the proposed project lends value to the program goals;

(4) Potential coordination with other investigators.

**(e) References cited.** Reference information is required. Each reference must include the names of all authors in the same sequence they appear in the publications, the article title, volume number, page numbers, and year of publications. While there is no established page limitation, this section should include bibliographic citations only and should not be used to provide parenthetical information outside of the 15 or 20-page proposal descriptions.

**(f) Milestone chart.** Provide time lines of major tasks covering the duration of the proposed project.

**(g) Standard Form 424A.** At time of proposal submission, all applicants are required to submit a SF424A Budget Form for each fiscal year increment. Multi-institution proposals must include a SF424A for each institution, and multi-investigator proposals using a lead investigator with a contractor/subgrantee approach must submit a SF424A for each contractor/subgrantee. Each contractor or subgrantee should be listed as a separate item. Describe products/services to be obtained and indicate the applicability or necessity of each to the project. Provide separate budgets for each subgrantee or contractor regardless of the dollar value and indicate the basis for the cost estimates. List all subgrantee or contractor costs under line item 6.f. contractual on the SF424A.

In order to allow reviewers to fully evaluate the appropriateness of costs, all applications must include a detailed budget narrative and a justification to support all proposed budget categories for each fiscal year. Personnel costs should be broken out by named PI and number of months requested per year per PI. Support for each PI should be commensurate with their stated involvement each year in the milestones chart (see Required Elements (f) Milestone chart). Any unnamed personnel (graduate students, post-doctoral researchers, technicians) should be identified by their job title, and their personnel costs explained similar to PI personnel costs above. The contribution of any personnel to the project goals should be explained. Travel costs should be broken out by number of people traveling, destination and purpose of travel, and projected costs per person. Equipment costs should describe the equipment to be purchased, and its contribution to the achievement of the project goals. For additional information concerning each of the required categories and appropriate level of disclosure please see [http://www.cop.noaa.gov/opportunities/grants/other\\_instructions.html](http://www.cop.noaa.gov/opportunities/grants/other_instructions.html).

Any ship time needs must be clearly identified in the proposed budget. The applicant is responsible for requesting ship time through appropriate channels and for meeting all requirements to ensure the availability of requested ship time. Copies of relevant ship time request forms (e.g. UNOLS ship request forms at <http://www.gso.uri.edu/unols/ship/mainmenu.html>) should be included with the proposal.

**(h) Biographical sketch.** All principal and co-investigators must provide summaries of up to 2 pages that include the following:

- (1) A listing of professional and academic credentials and mailing address;
- (2) A list of up to five publications most closely related to the proposed project and five other significant publications. Additional lists of publications, lectures, and the rest should not be included.

**(i) Current and pending support.** Describe all current and pending federal financial/funding support for all principal and co-investigators, including subsequent funding in the case of continuing grants. The capability of the investigator and collaborators to complete the proposed work in light of present commitments to other projects should be addressed. Therefore, please discuss the percentage of time investigators and collaborators have devoted to

other Federal or non-Federal projects, as compared to the time that will be devoted to the project solicited under this notice.

**(j) A list of all applicable permits that will be required to perform the proposed work.**

**(k) Provide one list that includes all collaborators, advisors, and advisees for each investigator (principal and co-principal investigators, post-docs, and subawardees), complete with corresponding institutions.** Submit only one, combined and alphabetized list per proposal. Collaborators are individuals who have participated in a project or publication within the last 48 months with any investigator, including co-authors on publications in the resumes. Collaborators also include those persons with which the investigators may have ongoing collaboration negotiations. Advisees are persons with whom the individual investigator has had an association as thesis advisor or postdoctoral sponsor. Advisors include an individual's own graduate and postgraduate advisors. Unfunded participants in the proposed study should also be listed (but not their collaborators). This information is critical for identifying potential conflicts of interests and avoiding bias in the selection of reviewers.

**(l) Proposal format and assembly.** Proposals submitted via Grants.gov APPLY should follow the format guidelines below:

Attachments must be submitted in Adobe Acrobat PDF format to maintain format integrity. Please submit the required documents as described below.

Follow the instructions found on the grants.gov web site for application submission into the grants.gov system. All required forms that do not have specific placeholders in the "Mandatory Document" box, must be submitted in the "Optional Form" box as "Other Attachments" and labeled with the document name. i.e. budget narrative, project description, milestone chart etc.

For multi institutional proposal: The SF424's of the additional institutions should be uploaded separately and labeled using the name of the institution/SF424 and then submitted in the "Optional Form" box as "Other Attachments". Combine all of the remaining required documents for the individual institution into one PDF file and submit the file labeled with the name of the institution. Repeat this procedure for each collaborating institution.

Save your completed application package with two different names before submission to avoid having to re-create the package should you experience submission problems. If you experience submission problems that may result in your application being late, send an e-mail to [support@grants.gov](mailto:support@grants.gov) and call the grants.gov help desk. Their phone number is posted on the grants.gov web site. The program manager associated with the RFA will use programmatic discretion in accepting late arriving proposals due to documented electronic submission problems. Please note: If more than one submission of an application is performed, the last application submitted before the due date and time will be the "official" version.

In addition to the twelve required elements, it is requested the SF424B, CD511 and the indirect rate agreement be provided upon application submission. These forms can be uploaded in to the "Optional Form" box under "Other Attachments" in grants.gov.

### **C. Submission Date and Time**

The deadline for receipt of proposals is 3 p.m. EST, October 2, 2006 (Note that late-arriving hard copy applications provided to a delivery service on or before October 2, 2006, with delivery guaranteed before 3 p.m., EST on October 2, 2006 will be accepted for review if the applicant can document that the application was provided to the delivery service with delivery to the address listed below guaranteed by the specified closing date and time; and, in any event, the proposals are received in the NCCOS/CSCOR office by 3 p.m., EST, no later than 2 business days following the closing date.)

#### **D. Intergovernmental review**

Applications under this program are not subject to Executive Order 12372, "Intergovernmental Review of Federal Programs." It has been determined that this notice is not significant for purposes of Executive Order 12866. Pursuant to 5 U.S.C. 553(a) (2), an opportunity for public notice and comment is not required for this notice relating to grants, benefits and contracts. Because this notice is exempt from the notice and comment provisions of the Administrative Procedure Act, a Regulatory Flexibility Analysis is not required, and none has been prepared. It has been determined that this notice does not contain policies with Federalism implications as that term is defined in Executive Order 13132.

#### **E. Funding Restrictions**

Indirect Costs: Regardless of any approved indirect cost rate applicable to the award, the maximum dollar amount of allocable indirect costs for which DOC will reimburse the recipient shall be the lesser of (a) the line item amount for the Federal share of indirect costs contained in the approved budget of the award or (b) the Federal share of the total allocable indirect costs of the award based on the indirect cost rate approved by a cognizant or oversight Federal agency and current at the time the cost was incurred, provided the rate is approved on or before the award end date. NCCOS/CSCOR will not fund start up or operational costs for private business ventures and neither fees or profits will be considered as allowable costs.

#### **F. Other Submission Requirements**

Proposals must include evidence of linkages between the scientific questions and management needs, such as the participation of co-investigators from both scientific and management entities. Proposals previously submitted to CSCOR FFOs and not recommended for funding must be revised and reviewer or panel concerns addressed before resubmission. Resubmitted proposals that have not been revised will be returned without review.

### **V. Application Review Information**

#### **A. Evaluation Criteria**

**1. Importance and/or relevance and applicability of proposed project to the program goals:** This ascertains whether there is intrinsic value in the proposed work and/or relevance to NOAA, Federal, regional, state, or local activities (30 percent). For this competition: the likelihood that the research will make substantial contributions or develop products leading to improved management of coastal resources.

**2. Technical/scientific merit:** This assesses whether the approach is technically sound and/or innovative, if the methods are appropriate, and whether there are clear project goals and objectives (30 percent).

**3. Overall qualifications of applicants:** This ascertains whether the applicant possesses the necessary education, experience, training, facilities, and administrative resources to accomplish the project (20 percent). For this competition, capability of the investigator and collaborators to complete the proposed work as evidenced by past research accomplishments, previous cooperative work, timely communication, and the sharing of findings, data and other research products.

**4. Project costs:** The Budget is evaluated to determine if it is realistic and commensurate with the project needs and time-frame (10 percent). For this competition, this refers to the adequacy of the proposed resources to accomplish the proposed work, and the appropriateness of the requested funding with respect to the total available funds.

**5. Outreach and education:** NOAA assesses whether this project provides a focused and effective education and outreach strategy regarding NOAA's mission to protect the Nation's natural resources (10 percent). For this competition, the applicant must demonstrate clear connections to management entities that will use the results of the proposed work and define the specific products, outcomes and timing of the proposed work that will be used in achieving this goal.

## **B. Review and Selection Process**

Once a full application has been received by NOAA, an initial administrative review is conducted to determine compliance with requirements and completeness of the application. All proposals will be evaluated and scored individually in accordance with the assigned weights of the above evaluation criteria by independent peer mail review and/or by independent peer panel review. Both Federal and non-Federal experts may be used in this process. The peer mail reviewers will be several individuals with expertise in the subjects addressed by particular proposals. Each mail reviewer will see only certain individual proposals within his or her area of expertise, and score them individually on a scale of one to five, where scores represent respectively: Excellent (5), Very Good (4), Good (3), Fair (2), Poor (1).

The peer panel will comprise 4 to 8 individuals, with each individual having expertise in a separate area, so that the panel, as a whole, covers a range of scientific expertise. The panel will have access to all mail reviews of proposals, and will use the mail reviews in discussion and evaluation of the entire slate of proposals. All proposals will be evaluated and scored individually. The peer panel shall rate the proposals using the evaluation criteria and scores

provided above and used by the mail reviewers. The individual peer panelist scores shall be averaged for each application and presented to the program officer. No consensus advice will be given by the independent peer mail review or the review panel.

The program officer will neither vote or score proposals as part of the independent peer panel nor participate in discussion of the merits of the proposal. Those proposals receiving an average panel score of "Fair" or "Poor" will not be given further consideration, and applicants will be notified of non-selection.

For the proposals scored by the panel as either "Excellent," "Very Good," or "Good", the program officer will (a) create a ranking the proposals to be recommended for funding using the average panel scores (b) determine the total duration of funding for each proposal; and (c) determine the amount of funds available for each proposal subject to the availability of fiscal year funds. Awards may not necessarily be made in rank order. In addition, proposals rated by the panel as either "Excellent," "Very Good," or "Good" that are not funded in the current fiscal period, may be considered for funding in another fiscal period without having to repeat the competitive review process.

Recommendations for funding are then forwarded to the selecting official, the Director of NCCOS, for the final funding decision. In making the final selections, the Director will award in rank order unless the proposal is justified to be selected out of rank order based on the selection factors listed below in C.

Investigators may be asked to modify objectives, work plans or budgets, and provide supplemental information required by the agency prior to the award. When a decision has been made (whether an award or declination), verbatim anonymous copies of reviews and summaries of review panel deliberations, if any, will be made available to the applicant. Declined applications will be held in the NCCOS/CSCOR for the required 3 years in accordance with the current retention requirements, and then destroyed.

### **C. Selection Factors**

Based on the panel review scores the program officer will provide a listing of proposals in rank order to the Selecting Official for final funding recommendations. A program officer may first make recommendations to the Selecting Official applying the selection factors below. The Selecting Official shall award in the rank order unless the proposal is justified to be selected out of rank order based upon one or more of the following factors:

1. Availability of funding.
2. Balance/distribution of funds:
  - a. Geographically
  - b. By type of institutions
  - c. By type of partners
  - d. By research areas
  - e. By project types
3. Whether this project duplicates other projects funded or considered for funding by NOAA or other federal agencies.

4. Program priorities and policy factors.
5. Applicant's prior award performance.
6. Partnerships and/or participation of targeted groups.
7. Adequacy of information necessary for NOAA to make a NEPA determination and draft necessary documentation before recommendations for funding are made to the grants officer.

#### **D. Anticipated Announcement and Award Dates**

Subject to the availability of funds, review of proposals will begin in December 2006. August 1, 2007 should be used as the proposed start date on proposals, unless otherwise directed by the Program Officer.

### **VI. Award Administration Information**

#### **A. Award Notices**

The notice of award is signed by the NOAA Grants Officer and is the authorizing document. It is provided by postal mail or electronically through the Grants Online system to the appropriate business office of the recipient organization.

#### **B. Administrative and National Policy Requirements**

##### **The Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements**

The Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements contained in the Federal Register notice of December 30, 2004 (69 FR 78389) are applicable to this solicitation.

#### **Limitation of Liability**

In no event will NOAA or the Department of Commerce be responsible for proposal preparation costs if these programs fail to receive funding or are cancelled because of other agency priorities. Publication of this announcement does not oblige NOAA to award any specific project or to obligate any available funds.

#### **National Environmental Policy Act (NEPA)**

NOAA must analyze the potential environmental impacts, as required by the National Environmental Policy Act (NEPA), for applicant projects or proposals which are seeking NOAA federal funding opportunities. Detailed information on NOAA compliance with NEPA can be found at the following NOAA NEPA website: <http://www.nepa.noaa.gov/>, including our NOAA Administrative Order 216-6 for NEPA, [http://www.nepa.noaa.gov/NAO216\\_6\\_TOC.pdf](http://www.nepa.noaa.gov/NAO216_6_TOC.pdf), and the Council on Environmental Quality implementation regulations, [http://ceq.eh.doe.gov/nepa/regs/ceq/toc\\_ceq.htm](http://ceq.eh.doe.gov/nepa/regs/ceq/toc_ceq.htm)). Consequently, as part of an applicant's package, and under their description of their program activities, applicants are required to

provide detailed information on the activities to be conducted, locations, sites, species and habitat to be affected, possible construction activities, and any environmental concerns that may exist (e.g., the use and disposal of hazardous or toxic chemicals, introduction of non-indigenous species, impacts to endangered and threatened species, aquaculture projects, and impacts to coral reef systems).

In addition to providing specific information that will serve as the basis for any required impact analyses, applicants may also be requested to assist NOAA in drafting of an environmental assessment, if NOAA determines an assessment is required. Applicants will also be required to cooperate with NOAA in identifying feasible measures to reduce or avoid any identified adverse environmental impacts of their proposal. The failure to do so shall be grounds for the denial of an application.

In conformance with the Uniform Administrative Requirements for Grants and Cooperative Agreements section 15 CFR 14.36, any data collected in projects supported by NCCOS/CSCOR should be delivered to a National Data Center (NDC), such as the National Oceanographic Data Center (NODC), in a format to be determined by the institution, the NODC, and the Program Officer. It is the responsibility of the institution for the delivery of these data; the DOC will not provide additional support for delivery beyond the award. Additionally, all biological cultures established, molecular probes developed, genetic sequences identified, mathematical models constructed, or other resulting information products established through support provided by NCCOS/CSCOR are encouraged to be made available to the general research community at no or modest handling charge (to be determined by the institution, Program Officer, and DOC).

### **C. Reporting**

All financial and performance (i.e. technical progress) reports shall be submitted electronically through the Grants Online system unless the recipient does not have internet access. In that case, hard copy financial reports are to be submitted to the NOAA Grants Officer and performance (technical) reports are to be submitted to the NOAA program officer. Financial reports are semi-annual and performance reports are annual.

## **VII. Agency Contact(s)**

**Technical Information.** Marc Suddleson NCCOS/CSCOR, Program Manager, 301-713-3338/ext. 162 Internet: [Marc.Suddleson@noaa.gov](mailto:Marc.Suddleson@noaa.gov).

**Business Management Information.** Laurie Golden, NCCOS/CSCOR Grants Administrator, 301-713-3338/ext 151, Internet: [Laurie.Golden@noaa.gov](mailto:Laurie.Golden@noaa.gov)

## **VIII. Other Information**

Collection of information requirements

Notwithstanding any other provision of law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with a collection of information subject

to the requirements of the Paperwork Reduction Act, unless that collection displays a currently valid OMB control number.

This notification involves collection-of-information requirements subject to the Paperwork Reduction Act. The use of Standard Forms 424, 424A, 424B, and SF-LLL has been approved by the Office of Management and Budget (OMB) under control numbers 0348-0043, 0348-0044, 0348-0040 and 0348-0046.